

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently amended): A method for controlling an aircraft, comprising the steps of:

receiving first vertical acceleration data related to a vertical acceleration of a front ~~portion~~ vibration antinode of said aircraft;

receiving second vertical acceleration data related to a vertical acceleration of a rear ~~portion~~ vibration antinode of said aircraft;

receiving pitch rate data related to a pitch rate of a center ~~portion~~ vibration node of said aircraft; and

computing ~~generating~~ a pitch command based on said first and second vertical acceleration data and on said pitch rate data.

Claim 2 (Currently amended): The method of Claim 1, wherein said step of computing ~~generating~~ comprises:

filtering signals carrying said first and second vertical acceleration data and said pitch rate data.

Claim 3 (Original): The method of Claim 2, wherein said step of filtering comprises filtering frequencies in excess of 10 Hz.

Claim 4 (Currently amended): The method of Claim 1, further comprising the step of receiving pitch flight control data, and wherein said step of computing ~~generating~~ comprises computing ~~generating~~ said pitch command based on said pitch flight control data.

Claim 5 (Currently amended): A method for controlling an aircraft, comprising the steps of:

receiving first horizontal acceleration data related to a horizontal acceleration of a front portion of said aircraft;

receiving second horizontal acceleration data related to a horizontal acceleration of a rear portion of said aircraft;

receiving roll rate data related to a roll rate of a center portion of said aircraft;

receiving yaw rate data related to a yaw rate of a center portion of said aircraft;

and

computing ~~generating at least one of both~~ a roll command and a yaw command based on said first and second horizontal acceleration data, on said roll rate data, and on said yaw rate data.

Claim 6 (Currently amended): The method of Claim 5, wherein said step of computing ~~generating~~ comprises:

filtering signals carrying said first and second horizontal acceleration data, said roll rate data, and said yaw rate data.

Claim 7 (Original): The method of Claim 6, wherein said filtering comprises filtering frequencies in excess of 10 Hz.

Claim 8 (Currently amended): The method of Claim 5, further comprising ~~[[a]]~~ the step of receiving roll flight control data, and wherein said step of computing ~~generating~~ comprises computing ~~generating~~ said roll command based on said roll flight control data.

Claim 9 (Currently amended): The method of Claim 5, further comprising the step of receiving yaw flight control data, and wherein said step of computing generating comprises computing generating said yaw command based on said yaw flight control data.

Claim 10 (Currently amended): The method of Claim 5 ~~10~~, further comprising the steps of:

receiving first vertical acceleration data related to a vertical acceleration of said front portion of said aircraft;

receiving second vertical acceleration data related to a vertical acceleration of said rear portion of said aircraft;

receiving pitch rate data related to a pitch rate of said center portion of said aircraft;
and

computing generating a pitch command based on said first and second vertical acceleration data and on said pitch rate data.

Claim 11 (New): A method for controlling an aircraft, comprising the steps of:

receiving roll, pitch, and yaw flight control data;

receiving roll, pitch, and yaw rate data related to roll, pitch, and yaw rates of a center vibration node of said aircraft;

receiving vertical acceleration data related to a vertical acceleration of a front vibration antinode of said aircraft and to a vertical acceleration of a rear vibration antinode of said aircraft;

receiving horizontal acceleration data related to a horizontal acceleration of said front vibration antinode of said aircraft and to a horizontal acceleration of said rear vibration antinode of said aircraft;

computing both a roll command and a yaw command based on said roll and yaw flight control data, on said roll and yaw rate data, on said vertical acceleration data, and on said horizontal acceleration data;

computing a pitch command based on said pitch flight control data, on said pitch rate data, and on said vertical acceleration data; and

actuating control surfaces configured to control roll, pitch, and yaw of said aircraft based on said roll, pitch, and yaw commands.

Claim 12 (New): The method of Claim 11, further comprising the step of filtering signals carrying said roll, pitch, and yaw rate data, said vertical acceleration data, and said horizontal acceleration data.

Claim 13 (New): The method of Claim 11, further comprising the step of weighing said roll, pitch, and yaw rate data, said vertical acceleration data, and said horizontal acceleration data.

Claim 14 (New): The method of Claim 12, further comprising the step of weighing said filtered roll, pitch, and yaw rate data, vertical acceleration data, and horizontal acceleration data.

Claim 15 (New): The method of Claim 14, further comprising the step of phase-controlling said filtered and weighed roll, pitch, and yaw rate data, vertical acceleration data, and horizontal acceleration data.

Claim 16 (New): The method of Claim 15, further comprising the step of

summing said phase-controlled, filtered, and weighed roll, pitch, and yaw rate data, vertical acceleration data, and horizontal acceleration data.

Claim 17 (New): The method of Claim 11, further comprising the step of integrating said roll rate data to derive roll angle information.

Claim 18 (New): The method of Claim 16, further comprising the steps of: integrating said roll rate data to derive roll angle information; and weighing said roll angle information.

Claim 19 (New): The method of Claim 18, wherein the step of summing additionally sums said roll angle information.

Claim 20 (New): The method of Claim 11, wherein said control surfaces include an elevator, ailerons, spoilers, and a rudder.